

**Appearance** Clear**Physical state** Liquid**Odor** Characteristic Odor**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing must not be allowed out of the workplace. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/ .? /equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/eye protection/face protection.

Precautionary Statements - Response

Specific treatment (see .? on this label).

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. Wash contaminated clothing before reuse.

IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. Rinse mouth.

In case of fire: Use CO₂, dry chemical, or foam to extinguish.

Precautionary Statements - Storage

Store locked up. Store in a well-ventilated place. Keep cool.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC)**Other Information**

- Very toxic to aquatic life with long lasting effects
- Very toxic to aquatic life

99.7935 % of the mixture consists of ingredient(s) of unknown toxicity

3. Composition/information on Ingredients

* 100% of the composition has been withheld as a trade secret.

4. First Aid Measures

Description of first aid measures

Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water. Wash off immediately with plenty of water. Wash contaminated clothing before reuse. Consult a physician if necessary.
Inhalation	Remove to fresh air. If breathing is difficult, give oxygen. Move to fresh air in case of accidental inhalation of vapors. If not breathing, give artificial respiration.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. Fire-Fighting Measures

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media .

Specific hazards arising from the chemical

Flammable. Keep product and empty container away from heat and sources of ignition.

Hazardous combustion products Irritating or toxic substances may be emitted upon burning, combustion, or decomposition.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Special protective actions for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes and inhalation of vapors. Wear protective gloves/protective clothing and eye/face protection. Wash thoroughly after handling.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. Handling and Storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists. Ensure adequate ventilation, especially in confined areas. Wash thoroughly after handling. When using do not eat, drink or smoke.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from sunlight. Keep locked up and out of reach of children.

Incompatible materials None known based on information supplied.

8. Exposure Controls/Personal Protection

Control parameters

Exposure guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
alpha-Pinene 80-56-8	TWA: 20 ppm	-	-
beta-Pinene 127-91-3	TWA: 20 ppm	-	-
delta-3-Carene 13466-78-9	TWA: 20 ppm	-	-
Citral 5392-40-5	TWA: 5 ppm inhalable fraction and vapor S*	-	-

Appropriate engineering controls

Engineering controls Showers
 Eyewash stations
 Ventilation systems.

Individual protection measures, such as personal protective equipment

- Eye/Face Protection** Wear safety glasses with side shields (or goggles). Avoid contact with eyes.
- Skin and Body Protection** Avoid contact with skin. Wear protective gloves and protective clothing.
- Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. Ensure adequate ventilation, especially in confined areas.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. When using do not eat, drink or smoke. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Regular cleaning of equipment, work area and clothing is recommended. Avoid breathing (dust, vapor, mist, gas).

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state	Liquid	Odor	Characteristic Odor
Appearance	Clear	Odor threshold	Not applicable
Color	Pale Yellow to Yellow		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not applicable	
Melting point / freezing point	Not applicable	
Boiling point / boiling range	No data available	
Flash Point	50 °C / 122 °F	
Evaporation Rate	Not applicable	
Flammability (solid, gas)	Not applicable	
Flammability Limit in Air		
Upper flammability limit:	Not applicable	
Lower flammability limit:	Not applicable	
Vapor pressure	Not applicable	
Vapor Density	Not applicable	
Specific gravity	Not applicable	
Water solubility	Not applicable	
Solubility in other solvents	Not applicable	
Partition coefficient	Not applicable	

Autoignition Temperature	Not applicable
Decomposition temperature	Not applicable
Kinematic viscosity	No data available
Dynamic viscosity	Not applicable
Explosive properties	Not applicable
Oxidizing properties	Not applicable

Other Information

Softening point	not applicable
Molecular weight	Not applicable
VOC content (%)	Not applicable
Density	Not applicable
Bulk Density	Not applicable

10. Stability and Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

11. Toxicological Information

Information on likely routes of exposure**Product Information**

Inhalation	Avoid breathing vapors or mists.
Eye Contact	Avoid contact with eyes. Causes serious eye irritation.
Skin contact	Avoid contact with skin. May cause an allergic skin reaction. Irritating to skin.
Ingestion	Harmful if swallowed. Potential for aspiration if swallowed.

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Irritating to skin.
Serious eye damage/eye irritation	Causes serious eye irritation.
Sensitization	May cause sensitization by skin contact.
Germ cell mutagenicity	Not classified.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
d-Limonene 5989-27-5		Group 2A Group 3		X

Reproductive toxicity This product does not contain any known or suspected reproductive hazards above the threshold value.

STOT - single exposure Not classified.

STOT - repeated exposure Not classified.

Aspiration hazard May be fatal if swallowed and enters airways.

Numerical measures of toxicity - Product Information

Unknown acute toxicity 99.7935 % of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

12. Ecological Information

This product contains a chemical which is listed as a severe marine pollutant according to DOT.

Ecotoxicity

Very toxic to aquatic life with long lasting effects

31.1109 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
d-Limonene 5989-27-5		0.619 - 0.796: 96 h Pimephales promelas mg/L LC50 flow-through 35: 96 h Oncorhynchus mykiss mg/L LC50		
Linalool 78-70-6	88.3: 96 h Desmodemus subspicatus mg/L EC50	22 - 46: 96 h Leuciscus idus mg/L LC50 static		20: 48 h Daphnia magna mg/L EC50
alpha-Pinene 80-56-8		0.28: 96 h Pimephales promelas mg/L LC50 static		41: 48 h Daphnia magna mg/L LC50
Eucalyptol 470-82-6		95.4 - 109: 96 h Pimephales promelas mg/L LC50 flow-through		
Citral 5392-40-5	16: 72 h Desmodemus subspicatus mg/L EC50 19: 96 h Desmodemus subspicatus mg/L EC50	4.6 - 10: 96 h Leuciscus idus mg/L LC50 static	EC50 = 2100 mg/L 30 min	7: 48 h Daphnia magna mg/L EC50
Camphene 79-92-5	1000: 72 h Desmodemus subspicatus mg/L EC50	0.72: 96 h Brachydanio rerio mg/L LC50 flow-through 150: 96 h Brachydanio rerio mg/L LC50 static		22: 48 h Daphnia magna mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. Disposal Considerations

Waste treatment methods

Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Do not reuse container.

14. Transport Information

DOT

UN/ID no	1197
Proper Shipping Name	Extracts, Flavoring, Liquid
Hazard Class	3
Packing group	III
Marine pollutant	This product contains a chemical which is listed as a severe marine pollutant according to DOT.
Description	(Limonene)

15. Regulatory Information

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

U.S. State Right-to-Know Regulations

This product contains substance(s) regulated by state right-to-know regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island
alpha-Pinene 80-56-8	X	X	X	
Terpinolene 586-62-9	X			

para-Cymene 99-87-6		X	X	
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U.S. EPA Label information

EPA Pesticide registration number Not applicable

16. Other Information

Revision date 22-Mar-2018

Revision note

No information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Classification and labeling according to the IFRA/IOFI Labeling Manual 2017.

End of Safety Data Sheet